REMARKS

Reexamination and reconsideration of claims 1-7 and 10-16 are respectfully requested. Claims 8 and 9 have been cancelled without prejudice. Claim 1 has been amended to include the merits of claim 8. The Examiner's acknowledgement of Applicants' Information Disclosure Statement is appreciated. Additionally, this Reply is accompanied by a petition under 37 C.F.R. 1.136(a).

Claims 1-3, 10, 14, and 16 were rejected under 35 U.S.C. sec. 102(e) applying U.S. Pat. App. Pub. No. 2003/0049005 (the '005 publication). The '005 publication discloses a dispersion compensation network where a dispersion compensating fiber with a negative dispersion of $-50\ ps/nm/km \leq \sigma < -20 ps/nm/km$ is connected with a optical fiber having a positive dispersion, thereby making the overall dispersion of the network nearly zero ps/nm/km, i.e., balanced, as shown by line b of Fig. 5. See the Abstract and Fig. 5 of the '005 publication. Specifically, line 'b' of Fig. 5 depicts the dispersion values for the overall network, while lines 'a' and 'c' respectively depict the dispersion for the single mode optical fiber and the dispersion compensating optical fiber. See Fig. 5 and p. [0090] of the '005 publication. For a patent to be applicable under sec. 102(e), the patent must, *inter alia*, disclose each and every feature of the claimed invention.

It is respectfully submitted that each and every feature of amended claim 1 is not disclosed, taught, or otherwise suggested by the '005 publication. Additionally, the amendment of claim 1 is not an admission that the art of record teaches, discloses, or otherwise suggests the features of the claims.

Specifically, claim 1 recites, *inter alia*, at least one first section (a) having fibres of a first type (H), and at least one second section (b) having fibres of a second type (N), wherein the dispersion of the fibres of the second type (N) is between about 0 ps/(nm·km) and about 12 ps/(nm·km) in a

transmission band of from about 1525 nm to about 1625 nm, the fibres of the first type (H) being connected to the fibres of the second type (N).

Consequently, the present invention inhibits non-linear effects by having a high-level fibre (H) and a low-level fibre (N) network, thereby advantageously allowing high launch powers into the system while maintaining a relatively low attenuation. See pp. [0015]-[0020] and p. [0033] of the present application. Thus, the assertion in the Office Action that "[t]he instant invention does not provide any reasons or specific problems to be solved by having a specific size or dispersion characteristics" is incorrect and contrary to the specification of the present invention. Rather, the present invention allows high launch powers so that the optical signal can travel long distances in the network. See pp. [0011]-[0017] of the present application. In other words, the claim 1 recites a first type of optical fiber (H) having a positive dispersion that is connected with a second type of fiber (N) that, generally speaking, also has a positive dispersion so that the overall dispersion of the network is positive.

Whereas, the '005 publication discloses an optical fiber having a positive dispersion fiber connected with a dispersion compensating fiber that has a negative dispersion so that the overall system dispersion is around zero as shown in Fig. 5. Stated another way, the '005 publication teaches an overall network dispersion that is essentially balanced so that the received signal has about the same period as the transmitted signal. As such, the '005 publication fails to disclose, teach, or otherwise suggest each and every feature of amended claim 1.

Additionally, claims 4-9, 11-13 and 15 were rejected under 35 U.S.C. sec. 103(a) applying the '005 publication without a teaching reference. For a publication to be applicable under sec. 103(a), the teachings must, *inter alia*, expressly or inherently,

teach, disclose, or otherwise suggest each and every feature of the claimed invention. Additionally, motivation and suggestion to combine the teachings must be present.

It is respectfully submitted that at least each and every feature of amended claim 1 is not disclosed, taught, or otherwise suggested either explictly, or inherently, by the '005 publication. Simply stated, the '005 publication requires a positive dispersion optical fiber and a negative dispersion optical fiber so that the overall dispersion is generally near zero, i.e. balanced, as shown by line 'b' of Fig. 5. Since the '005 publication fails to teach, disclose, or otherwise suggest each and every feature of amended claim 1 as discussed a *prima facie* case of obviousness is lacking.

Furthermore, the objective evidence shows that the '005 publication teaches a balanced dispersion network by using respective positive and negative dispersion optical fibers, rather than the invention recited in amended claim 1. Additionally, the skilled artisan would not be motivated to make the purported modification suggested in the Office Action since the '005 publication teaches away from the purported modification. Specifically, the objective evidence shows that the optical network of the '005 publication would not be balanced if the purported modification was made. Thus, the skilled artisan would not have been motivated to make the purported modification. Clearly, the purported modification is contrary to the express teachings of the '005 publication. See pp. [0013] and [0014] of the '005 publication. For at least these reasons, amended claim 1 is patentable and the withdrawal of the sec. 103(a) rejection of the claims 4-7, 11-13, and 15 is warranted and respectfully requested.

One-hundred and ten dollars ($110.00) are believed due in connection with this Reply. If any fees are due in connection with this Reply, please charge any fees, or credit any overpayment, to Deposit Account Number 50-0425.

Allowance of all pending claims is believed to be warranted and is respectfully requested.

The Examiner is welcomed to telephone the undersigned to discuss the merits of this patent application.

Respectfully submitted,

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